

PATENT COOPERATION TREATY
PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference MGH/PC/P10758PC	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 00/ 02414	International filing date (day/month/year) 21/06/2000	(Earliest) Priority Date (day/month/year) 21/06/1999
Applicant UNIVERSITY COURT OF THE UNIVERSITY OF DUNDEE		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
 - contained in the international application in written form.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority in written form.
 - furnished subsequently to this Authority in computer readable form.
 - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. Certain claims were found unsearchable (See Box I).

3. Unity of invention is lacking (see Box II).

4. With regard to the **title**,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

USE OF EIF4E BINDING AGENTS IN THERAPY

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

1

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/02414

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7	C07K14/47	A61P35/00	A61K38/17
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, PAJ, BIOSIS, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94 18345 A (AFFYMAX TECH NV ;UNIV LELAND STANFORD JUNIOR (US)) 18 August 1994 (1994-08-18) abstract page 52; claims 17-26; table II ---	4,7-10
X	RENSCHLER, MARKUS F. ET AL.: "B-LYMPHOMA CELLS ARE ACTIVATED BY PEPTIDE LIGANDS OF THE ANTIGEN BINDING RECEPTOR OR BY ANTI-IDIOTYPIC ANTIBODY TO INDUCE EXTRACELLULAR ACIDIFICATION" CANCER RES (1995) 55(23) 5642-7, XP002158828 abstract; table 1 ---	4,7-10
X	WO 96 13614 A (KORSMEYER STANLEY J ;UNIV WASHINGTON (US)) 9 May 1996 (1996-05-09) abstract; claim 2 ---	4,7-10

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

30 January 2001

Date of mailing of the international search report

16/02/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Cervigni, S

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/02414

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 39357 A (UNIV CALIFORNIA) 11 September 1998 (1998-09-11) page 19; table 5 ----	4,7,10
A	ALTMANN M ET AL: "A novel inhibitor of cap-dependent translation initiation in yeast: p20 competes with eIF4G for binding to eIF4E" EMBO JOURNAL, GB, OXFORD UNIVERSITY PRESS, SURREY, vol. 16, no. 5, 3 March 1997 (1997-03-03), pages 1114-1121, XP002143166 ISSN: 0261-4189 figure 1C ----	5,6
A	LAWRENCE J C ET AL: "PHAS/4E-BPs as regulators of mRNA translation and cell proliferation" TIBS TRENDS IN BIOCHEMICAL SCIENCES, EN, ELSEVIER PUBLICATION, CAMBRIDGE, vol. 22, no. 9, 1 September 1997 (1997-09-01), pages 345-349, XP004088010 ISSN: 0968-0004 cited in the application page 345, column 3, paragraph 2 ----	5
A	POLUNOVSKY V A ET AL: "TRANSLATIONAL CONTROL OF APOPTOSIS: AN ESSENTIAL ROLE FOR INITIATION FACTOR 4E IN PREVENTING ONCOGENE-DEPENDENT CELL DEATH." PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH ANNUAL, vol. 38, 1997, page 624 XP002158937 1997 ISSN: 0197-016X -----	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-3, 7

Present claims 1-3 relate to compounds defined by reference to a desirable characteristic or property, namely the capacity of binding to eIF4E.

The claims cover all products having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 PCT for only a very limited number of such products. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the products as further characterised in claims 4-6. Claim 7 has been searched only in so far it relates to the same subject-matter of claims 4-6.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 00/02414

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 1-3, 7 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/02414

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 9418345	A 18-08-1994	US 5512435 A		30-04-1996
		AU 6171194 A		29-08-1994
WO 9613614	A 09-05-1996	US 5622852 A		22-04-1997
		AU 707470 B		08-07-1999
		AU 4143196 A		23-05-1996
		EP 0804617 A		05-11-1997
		JP 10508472 T		25-08-1998
		US 5834209 A		10-11-1998
WO 9839357	A 11-09-1998	AU 4267297 A		22-09-1998
		EP 0979238 A		16-02-2000
		AU 2328697 A		22-09-1997
		EP 0929569 A		21-07-1999
		JP 2000506853 T		06-06-2000
		NO 984093 A		04-11-1998
		NZ 331757 A		28-10-1999
		SK 122898 A		14-02-2000